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# **ENVIRONMENTAL REPORT**

## **from NAS Jacksonville**

No. 4, March 3, 1992

### **OPERABLE UNIT ONE CHILD STREET AREA**

A Remedial Investigation/Feasibility Study (RI/FS) Work Plan has been prepared and is being implemented for Operable Unit No. 1 (OU1), the Former Oil and Solvents Pits Disposal Area (commonly called the Child Street area), at the Naval Air Station, Jacksonville, Florida.

The Child Street Area is located in the south-central portion of the base west of the family housing area next to Child Street. It includes potential sources of contamination (PSC) 26 and 27. Because the two PSCs are situated adjacent to each other, have similar boundary conditions and have been previously assessed jointly, the two PSCs have been grouped together in a single unit for further investigation and clean-up.

#### **Site Description and History**

PSC 26, the Old Main Registered Disposal Area, occupies approximately 38 acres and comprises the majority of the Child Street Area. It was used for the disposal of a variety non-hazardous wastes including garbage, construction debris and other inert materials. Hazardous wastes were also disposed at this site, including oil and fuel, waste oils, spent solvents, small glass vials containing low-level radioactive paint and paint

wastes containing heavy metals.

Prior to 1940, the Navy used PSC 26 as a disposal area for solid, non-hazardous waste. From 1940 to 1968, PSC 26 was the designated disposal area for sanitary waste, demolition and construction debris and waste oil on the air station. These wastes were generally placed in pits or trenches and ignited. After the pits became full of accumulated residue, they were covered with soil.

The burning of wastes at PSC 26 was eventually discontinued, because of air pollution control standards. However, the Navy continued to dispose of waste oil, paint waste and spent solvents into pits at PSC 26. This site was reportedly also used for disposal of low-level radioactive wastes during the 1940s and 1950s.

PSC 27, the former PSC Storage Area, is located on the southeastern edge of PSC 26 and is substantially smaller in area (approximately 100 x 100 feet). Transformers containing PCB oils were stored on concrete slabs. Reportedly, vandalism to the transformers in 1978 resulted in the spillage of transformer oil onto the ground.

### **Remediation History**

A variety of remedial actions have taken place at this site, beginning in 1973. At that time, the Navy notified the Radiological Affairs Support Office (RASO) that radium-paint waste may have contaminated the site. After a site visit by the RASO, it was determined that remedial action was required. A total of 501 barrels of glass vials and soil contaminated with low-level radioactive paint waste were excavated and transported offsite for disposal at a Barnwell, South Carolina, landfill.

In the spring of 1978, oil was discovered in a ditch draining into the St. Johns

River. A preliminary investigation conducted by the engineering staff at NAS Jacksonville confirmed the presence of oil in the shallow ground-water system in the vicinity. The Navy officially closed this disposal area on January 15, 1979.

In April 1979, the Navy performed an evaluation of contamination at PSC 26. During the investigation, additional sources of contamination were discovered. Based on the investigations, the Navy decided to construct of a system of drainage ditches around the perimeter of the area to collect the waste oil. In 1983, the project was implemented. The entire area was graded to drain into the perimeter ditches. The trenches were equipped with underflow weirs and automatic surface oil skimmers to collect and remove oil floating to the surface.

While the system was successful at removing most of the waste oil, it was not effective at removing spent solvents and other contaminants at the site. No remedial activities have taken place at this site since the system was suspended in April 1984. Testing conducted subsequent to the area's closure confirmed that a RI/FS was necessary.

### **Work Plan**

The purpose of the RI/FS process at the Child Street Area is to determine the nature and extent of contamination through extensive sampling and analysis. The feasibility study is conducted to develop, screen and evaluate remedial alternatives. Remedial alternatives are screened based on nine criteria, including protection of human health and the environment, community acceptance, regulatory compliance, effectiveness, implementability and cost.

Based on the RI/FS, the Navy with input from State and federal regulatory agencies

and the public, select a cost-effective remedial plan to mitigate and protect public health, welfare and the environment. The selected remedial plan is recorded in a Record of Decision (ROD). At NAS Jacksonville, the Navy, the FDER and the EPA must agree on a chosen remedial action.

The Navy is currently conducting the RI/FS at the Child Street Area. Tests to be conducted in and around the Child Street Area include:

- ecological inventory
- surface water/sediment sampling
- air sampling
- soil gas survey
- seismic survey
- soil sampling
- soil borings/intermediate wells
- piezometer/monitoring wells
- well testing
- ground water sampling

### Schedule of Events

A draft report of the investigation is expected in April 1993. This report will include a detailed analysis of contaminants found at the site, their concentrations and how they may be spreading. The report will also outline alternative methods of clean-up.

In spring 1994, the Navy and regulatory agencies will reach an agreement of the proposed method of clean-up. A model of that system will be designed and tested in 1995 and, if successful, clean-up operations should begin in 1996.